CLAIMS

The embodiments of the invention in which an exclusive property or right is claimed are defined as follows. Having thus described the invention what is claimed is:

1. A sensor testing system, comprising:

a pressure rail having at least one pressure inlet and a plurality of pressured cavities formed therein;

a plurality of housing components respectively located atop said plurality of pressured cavities, wherein each housing component among said plurality of housing component is sealed to a respective pressurized cavity from among said plurality of pressurized cavities;

a connector component threaded into a top of each housing component among said plurality of housing components for attachment to a sensor for testing thereof.

2. The system of claim 1 wherein each housing component among said plurality of housing components is configured from a clear thermoplastic material, which protects each housing component from RF frequencies, and high temperature and pressure conditions.

3. The system of claim 1 wherein said connector component comprises a BNC connector which attaches to a printed circuit board of said sensor and a plurality of wires associated with said sensor.

4. The system of claim 3 wherein said printed circuit board comprises two female sockets soldered to said printed circuit board that respectively accept a pin associated with a base of said sensor.

5. The system of claim 3 wherein each pressurized cavity among said plurality of pressurized cavities is filled with an epoxy for sealing each respective housing component to said BNC connector to prevent pressure leakage.

6. The system of claim 5 wherein said epoxy comprises a high-temperature epoxy.

7. The system of claim 1 wherein said pressure rail if configured from aluminum.

8. The system of claim 1 further comprising a plurality of O-ring grooves, wherein each O-ring groove among said plurality of O-ring grooves is respectively milled about each pressurized cavity among said plurality of pressurized cavities in order to seal said pressure rail to said plurality of housing components.

9. The system of claim 8 wherein said pressure rail comprises an aluminum plate.

10. The system of claim 9 wherein each pressurized cavity among said plurality of pressurized cavities comprises a pressure channel that permits pressure to be applied in each of said pressurized cavities milled into a top surface of said aluminum plate.

11. The system of claim 1 wherein sensor comprises a SAW sensor.

12. A SAW sensor testing system, comprising:

a SAW sensor comprising a printed circuit board and a SAW sensor base, wherein said printed circuit board comprises two female sockets soldered to said printed circuit board that respectively accept a pin

associated with said SAW sensor base;

a pressure rail having at least one pressure inlet and a plurality of pressured cavities formed therein;

a plurality of housing components respectively located atop said plurality of pressured cavities, wherein each housing component among said plurality of housing component is sealed to a respective pressurized cavity from among said plurality of pressurized cavities, wherein each housing component among said plurality of housing components is configured from a clear thermoplastic material, which protects each housing component from RF frequencies, and high temperature and pressure conditions;

a connector component threaded into a top of each housing component among said plurality of housing components for attachment to said SAW sensor for testing said SAW sensor, wherein said connector component comprises a BNC connector which attaches to said printed circuit board of said SAW sensor and a plurality of wires associated with said SAW sensor.

13. A sensor testing method, comprising the steps of:

providing a pressure rail having at least one pressure inlet and a plurality of pressured cavities formed therein;

locating a plurality of housing components respectively atop said plurality of pressured cavities, wherein each housing component among said plurality of housing component is sealed to a respective pressurized cavity from among said plurality of pressurized cavities; and

threading a connector component into a top of each housing component among said plurality of housing components for attachment to a

sensor for testing of said sensor.

14. The method of claim 13 further comprising the step of configuring each housing component among said plurality of housing components from a clear thermoplastic material, which protects each housing component from RF frequencies, and high temperature and pressure conditions.

15. The method of claim 13 further comprising the step of configuring said connector component as a BNC connector, which attaches to a printed circuit board of said sensor and a plurality of wires associated with said sensor.

16. The method of claim 15 wherein said printed circuit board comprises two female sockets soldered to said printed circuit board that respectively accept a pin associated with a base of said sensor.

17. The method of claim 15 further comprising the step of filling each pressurized cavity among said plurality of pressurized cavities with an epoxy for sealing each respective housing component to said BNC connector to prevent pressure leakage.

18. The method of claim 17 wherein said epoxy comprises a high-temperature epoxy.

19. The method of claim 13 further comprising the step of initially forming said pressure rail from aluminum.

20. The method of claim 1 further comprising the steps of:

configuring said pressure rail as in a form of an aluminum plate; and

providing a plurality of O-ring grooves, wherein each O-ring groove

among said plurality of O-ring grooves is respectively milled about each pressurized cavity among said plurality of pressurized cavities in order to seal said pressure rail to said plurality of housing components.